

REMARKS

Introductory Comments:

In the Office Action under reply, the first Action on the merits, claims 24, 25, 30, and 38 were examined, claims 1-23, 31-37, and 42-90 having been withdrawn as a result of restriction, and claims 26-29 and 39-41 *erroneously* withdrawn as directed to nonelected species. ***Please note that claims 26-29 and 39-41 read on the elected species and (with the exception of now - canceled claim 41) should be examined along with claims 24, 25, 30, and 38.***

Claims 24, 25, and 30 stand rejected under 35 U.S.C. § 102(e) as anticipated by Parker et al. ("Parker," US 2003/0055190 A1), and claim 38 stands rejected under 35 U.S.C. § 102(b) as anticipated by Hart et al. ("Hart," US 3,150,977). In addition, the Restriction Requirement set forth previously by the Examiner has been made final. Applicants' election without traversal of Group IV (i.e., claims 34-20, 38-41) has been acknowledged by the Examiner.

With this amendment, claims 1-23, 31-37, and 41-90 have been canceled, claims 37 and 38 have been amended, and new claim 91 has been added. Accordingly, claims 24-30, 38-40, and 91, are now pending. Please note that the specification has also been amended at paragraph [00111] to correct an inadvertent typographical error.

The aforementioned rejections are overcome in part by the amendments made herein and are otherwise traversed for the reasons discussed below.

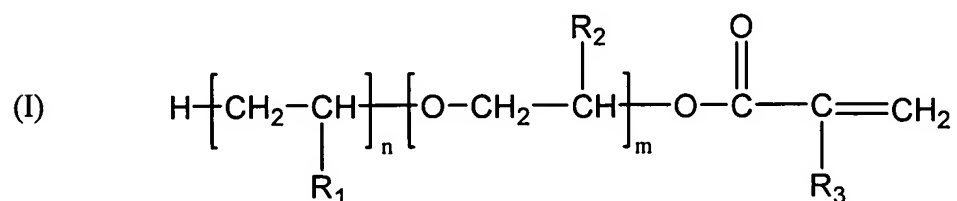
Claim Amendments:

Claim 38 has been amended to recite that "m" is an integer in the range of 1 to 100,000, and that SC is a poly(alkylene oxide) side chain containing about 4-20 alkylene oxide units. As support for this amendment can be found at least in the original claim language and in paragraph [00113], no new matter has been added. Claim 39 has been amended in light of the aforementioned amendment to parent claim 38.

New claim 91 has been added, support for which can be found in the original language of claim 38. Again, no new matter has been added by this amendment.

Rejection under 35 USC § 102(e) over Parker:

Claims 24, 25, and 30 stand rejected under 35 USC § 102(e) as anticipated by Parker, the Examiner citing paragraphs [0001] and [0006]-[0014] of the reference, the former pertaining generally to acrylic polymers useful in adhesive applications and the latter cited as describing acrylic acid esterified with a hydrophilic side chain. The specific polymer composition noted by the Examiner derives from polymerization of a macromonomer having the structure (I)



wherein R₁ is selected from H and CH₃, R₂ is selected from H and C₁-C₅ alkyl, R₃ is selected from H and CH₃, n=9-115, preferably 12-90, more preferably 15-50, and m=0-1370, preferably 0-65, more preferably 0-50.

The polymer set forth in claim 24 is clearly distinct from Parker, in that it is necessarily a *water-soluble* polymer. By contrast, the monomers in Parker (i.e., molecules that have the structure of formula (I)) are referred to as "synthetic wax monomers," or SWMs, indicating that they are *water-insoluble*. This is further substantiated by the polymerization procedures that are outlined in Parker. For example, in paragraph [0016], Parker states that "a SWM slurry is prepared prior to polymerization of the SWM." The second polymerization approach, outlined in paragraph [0017] on page 2 of Parker, also calls for a slurry containing a SWM. A third approach to polymerization, outlined in paragraph [0018] on page 2 of Parker, specifies that an emulsion is formed using the SWM, at least one second monomer, a surfactant, and water. For all of the examples in Parker, mixtures of SWM and water are either slurries or emulsions. This indicates that the SWMs of Parker are not water soluble, and there is no evidence given in Parker that the resulting polymers are water soluble. Indeed, paragraph [0041] on page 4 of Parker states that "[t]oluene, xylene, and decalin are examples of good solvents [for the polymers]." Clearly, the polymers prepared in Parker are not water soluble, and the disclosure thereof cannot, therefore, anticipate claim 24 or any claim dependent thereon.

Furthermore, paragraph [0032] on page 3 of Parker states that the polymers can be post crosslinkable, meaning that "...the polymer may have reactive groups which do not react during

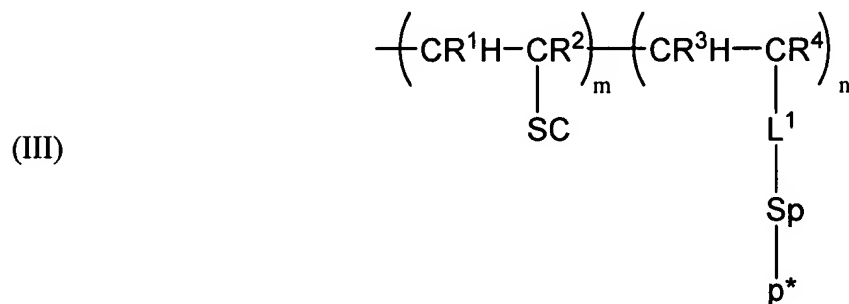
polymerization, but may react after polymerization to provide crosslinking." Clearly, this form of crosslinking is not encompassed by pending claims 24-30, which state that the adhesive polymer is "...free of covalent crosslinks..." Although paragraph [0005] on page 1 of Parker speaks of physical (i.e., non-covalent) crosslinking that is achievable using the described methods, paragraph [0032] refers to chemical *reactions* that lead to crosslinking, thereby necessarily including covalent crosslinking. Thus, on still another ground, the polymers and compositions set forth in pending claims 24-30 are not anticipated by Parker.

For at least the foregoing reasons, applicants submit that Parker does not anticipate the rejected claims, and respectfully request reconsideration and withdrawal of the rejection.

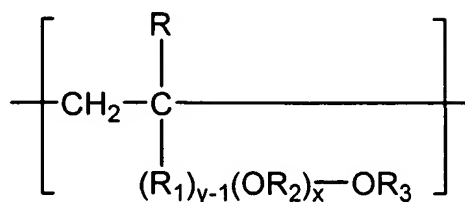
Rejection under 35 USC § 102(b) over Hart:

Claim 38 stands rejected under 35 USC § 102(b) as anticipated by Hart., the Examiner citing a formula that encompasses the claimed invention. The rejection is traversed for at least the following reasons.

As amended, claim 38 of the application relates to copolymers that have the structure of formula (III)



wherein: m is an integer in the range of 1 to 100,000; n is an integer in the range of 1 to 100,000; SC is a poly(alkylene oxide) side chain containing about 4-20 alkylene oxide units; and R¹, R², R³, R⁴, L¹, Sp and P* are defined above in the Listing of the Claims. Thus, the claimed copolymers necessarily contain monomer units that have hydrophilic side chain groups. In contrast, Hart is directed to compounds that have the following structure:



wherein R_3 is a member selected from the group consisting of a hydrogen atom, a hydrocarbon radical and a substituted hydrocarbon radical, R_1 is a member selected from the group consisting of a carbonyl group and a $-\text{NH}-\text{CO}-$ group, and R , R_2 , x and y are as described in Hart. This structure clearly does not represent a copolymer, as required by the current claim 38. Hart speaks of copolymers that can be obtained incorporating the above structure, but specifies that the other portions of such copolymers can be made only from "vinylmonomers [sic] such as acrylic- [sic] and methacrylic acid, acryl- and methacrylamide, vinylacetate, acrylonitrile, etc." Thus, Hart makes no reference to copolymers of the above structure that also comprise poly(alkylene oxide) side chains, as required by the current claim 38.

The polymers of newly added claim 91 are also patentably distinct from the compounds of Hart, in that the linking group between the polymer backbones and the Sp groups (i.e., L^1) is selected from $-\text{O}-(\text{CO})-$, $-\text{O}-(\text{CO})-\text{O}-$, $-(\text{CO})-\text{NH}-$, $-\text{O}-(\text{CO})-\text{NH}-$, $-\text{NH}-(\text{CO})-\text{O}-$, $-\text{S}-\text{S}-$, $-\text{S}-(\text{CO})-$, and $-(\text{CO})-\text{S}-$. In contrast, Hart limits R_1 to $-\text{CO}-$ and $-\text{NH}-\text{CO}-$.

Thus, for at least the foregoing reasons, Hart does not anticipate claim 38 or the pending claims dependent thereon (i.e., claims 39 and 40), nor does Hart anticipate claim 91.

Reconsideration and withdrawal of the anticipation rejection over Hart is therefore respectfully requested.


CONCLUSION

Applicants accordingly submit that all of the now-pending claims are allowable, and accordingly request a Notice of Allowance.

Should the Examiner have any questions concerning this communication, or wish to discuss the application so as to preclude need for a further Action, he is invited to contact the undersigned agent at (650) 251-7724.

Respectfully submitted,

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